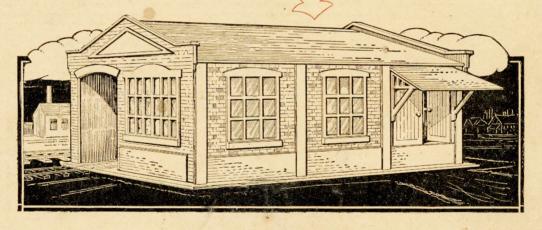


FREE! Design for making this

GOODS SHED



October 26th, 1935

2

Vol. 81. No. 2088

THE FRETWORKER'S AND HOME CRAFTSMAN'S JOURNAL

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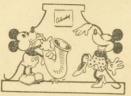


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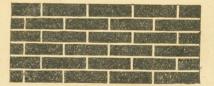


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OW are you getting along with the Competition? Cut out and solved the two puzzles yet? I hope so because then you will be ready for the other two still to come. It is one of those competitions which are worth doing because the entry is actually a lasting piece of amusement.

Then each picture is of the latest type aeroplane, so that's interesting too.

GREAT news for next week, too. All particulars how to make

one of those model Galleons which are so popular just now. They are replicas of the fighting ships in the exciting days of the Spanish Armada, Drake, Sir Richard Grenville, etc. The article gives a full description how to make the model and the usual parcel of materials is supplied by Hobbies Ltd. The cost is only 1/6, so there will, I know, be a very large number made.

SPECIAL offer is being made for a week or two of about 2/6 worth of goods for 1/4 to readers of Hobbies Weekly only. The packet contains four 6d. exercise books, four novel erasers and a fountain pen and pencil, all of which will be sent post free if you forward postal order for 1/4 to me and mention this special offer.

N Exhibition organised by the Home Arts and Industries Association is being held at Sunderland House, Curzon Street, London, W.I., from November 4th to the 9th. Readers in London will find it unusually interesting with examples of work done by members of the Association. This Society has been founded many years and aims at forming instruction classes for home workers with arrangements and facilities for selling the

work and having examples at this annual Exhibition. Readers who would like to know further particulars can get them from the Secretary at the Exhibition or write to the Association at The Royal Albert Hall, London, S.W.7.

The Editor's Notes

READER is suggesting an "Indoors Games Number."

Would it be too much of a good thing do you think?
Let me know, will you? A

In connection with the Gift Design sent out by Hobbies and the Competition which it features some workers are writing from the Irish Free State, and wanting to know how they can enter. Unfortunately the troubles of Customs into that country make the sending of Competition entries awkward. So we have had to arrange a special overseas section and for this there is a separate list of awards. Those in the I.F.S., therefore, who have not yet received a Competition for the Overseas Section should drop a line to Hobbies or to me and a complete set of leaflets will come along.

NOTHER hobby I have just heard of (there must be no end to them) is that of a retired naval officer who has collected more

than 150 clocks. Some have dials and some have not (intentionally) whilst one serves also as a container for a barometer, a thermometer and a compass. Such a hobby may not appeal to everyone because of the cost, but it is at least another hobby to add to our amazing list.

postcard will do, thanks.

HOPE everyone reads the small Miscellaneous Advertisements each week at the end of the book. They certainly contain some worthwhile bargains.

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Next Week's Design-A Handkerchief Box

Correspondence should be addressed to: The Editor, Hobbies Weekly, Dereham, Norfolk, and a stamp enclosed if a reply is required. Particulars of Subscription rates, Publishing, Advertising etc. will be found on cover iti.

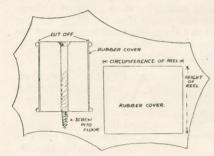
Send your own simple tips to The Editor, Hobbies Weekly, Dereham, Norfolk Keep them short and add rough pencil sketches if possible.



For original Tips published the sender will receive one of Hobbies Self-filling Fountain Pens. We cannot acknowledge or print all tips sent in.

A Door Stop

TAKE an ordinary cotton reel and file or cut off the end flanges. Now take a piece of rubber and cut to the length of the reel. Stick it to the wood of the reel and cut off where the



two ends meet again, sticking to the wood. Take a screw about in longer than the length of the reel, pass through the reel and screw to the floor in the required position. If the reel is countersunk for the screw the job will be improved.

Bicycle Polish

ADD one tablespoonful of vinegar to four of raw linseed oil and shake the mixture well. Apply to the enamelled parts of the bicycle with a dry rag, polishing with another rag, and you will get a shine that makes an old bike look like new.

Silver Plating

A T home it is found that silver plated ware often wears off in the course of time. This formula tells how it can be renewed at little expense. Put in a glass vessel, I oz. nitrate of silver, 2 oz. cvanuret potassa, 4 oz. Spanish whiting and 10 oz. of pure rain water. Apply this solution with a soft brush and polish to finish off.

Lamp Wick

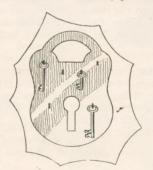
THE correct way to trim a lamp wick is to pinch off the charred edge with the fingers. Never first cut the wick with scissors, though if any frayed ends appear after the above treatment they should be neatly cut off.

Plaster of Paris

MIX together some paperhanger's paste, whitewash and cotton wool with a small quantity of water. This composition, it will be found can be modelled into any shape. It dries hard, and can be painted with either water or oil colours. It is most suitable for rocks and mountain scenery in model railway building.

A Key-rack

A SIMPLE yet effective and attractive key-rack can be easily made in fretwood by enlarging proportionately the dimensions of an ordinary padlock.



The necessary small hooks can be fixed in appropriate positions, as shown in the drawing, whilst the whole thing can be painted with eggshell black or aluminium paint-to make it even more realistic.

Duplicating Patterns

No doubt some readers have trouble in tracing off patterns given away with Hobbies Weekly, Here is a very simple way of reproducing them. First, paste the pattern on wood and cut it out. Then you get your tracing paper, lay it over your cut-out and obtain a piece of heel-ball. Rub it over the tracing and you will have a perfect pattern of the original design.

Dimming Electric Bicycle Lamps

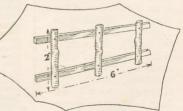
OBTAIN a microstat and fix it inside the saddle stump by means of a cork. Connect one terminal of the battery to the top connection of the microstat. The bottom microstat connection is then passed through the back opening of the saddle stump and connected to the bicycle frame with the saddle screw. The circuit is now complete as the other terminal is joined to the lamp. The lamp is dimmed by screwing the microstat.

Fretmachine Glaspapering Discs

GET a piece of hard and heavy wood 6ins. diameter and 1½ ins. thick. Cut two pieces of glasspaper 6ins. diameter and 1½ ins. wide and glue on the face of the wood with the 1½ in. strip on the edge and join with a slight overlap. Drill a hole exactly the same size as your spindle in the centre of your wood and take off the original flywheel and put your block of wood on. See this fits tightly and you have an excellent glasspapering machine with a flat surface for large work and an edge strip for narrow and small work.

Model Fences

VERY realistic fences for a model railway layout can be made from a few twigs and some small pieces of stripwood. Each length of fencing should be about 6ins. in length and consist of three uprights and two cross pieces.



The latter should be fixed to the uprights which are about 2ins. high, with small tacks, and this completed part attached to the stripwood base.



THIS week the design sheet provides the patterns for another one of the series of model railway parts. We have already had the various models set out in the list shown herewith, and now we add the goods shed-a very necessary accessory to any lay-out. The gauge is 13ins, and the whole series has been on the same scale. One can, therefore, build a complete model lay-out in wood from the designs published.

The whole thing is built in plywood, and the parts are quite simply cut with the fretsaw to the patterns shown. Apart from the cutting there is, of course, the question of finish, and in this case paint is used to get the realistic effect of brickwork, roofing, doors, etc. It is indeed, largely a question of how well the model is painted up in the end,

whether it appears good or not.

Having, therefore, constructed the whole thing, you cannot pay too much attention or spend too much time in the painting. Do not try and overlap different colours before one is dry. Use the Crusoe enamel re-

commended—it is obtainable in 2d. tins—and can easily be applied with a small brush. It sets quickly, and brings up a very bright and colourful

body.

The Materials

The parcel of wood for all parts is supplied for 3/3, and the only additional fittings are the six pieces of glass, which cost a further 9d. The whole thing is obtainable for 4/6 post free, and when

completed makes up a toy well worth double that amount.

Before commencing, study

GOODS SHED BUILT FROM DESIGN 2088

the design sheet and the picture of the finished shed herewith, in order to get a good idea of the construction. Note, for instance, that the two long sides are the same in outline, but one has the addition of windows and loading doors, as marked. Both sides have the upright piers on their walls, and the position of these should be marked on so they can be seen after the paper has been cleaned away.

The two ends are alike, and contain a single

long window and an opening through which the engine and goods trucks pass when in use. The baseboard is a plain piece of plywood 101ins. wide and 15ins. long. The four uprights are built on it so it projects a little

PREVIOUS DESIGNS

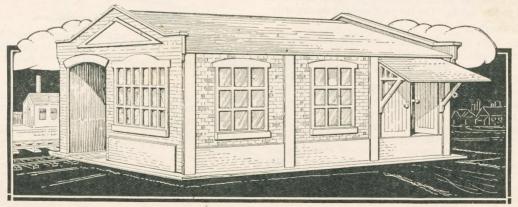
Tank Engine, Open Truck and Box Wagon February 2nd 1935. Brake Van, Milk Traffic Van and Timber Wagon—March 23rd, 1935. Engine Shed—April 13th, 1935. Signal Cabin—May 18th, 1935. Station—July 13th, 1935. Passenger Coach—September 14th, 1935. Design No. 2050 ,, 2057

2060 2065 ,, 2073 ,, 2082

beyond them evenly.

There is more projection at the ends, by the way, than there is at the sides. The long sides are glued and screwed between the two ends, and little triangular blocking pieces can be fixed inside to strengthen and consolidate the whole framework. Screw up from beneath so a whole rigid frame results.

Cut out these sides and ends, and test them in place, but do not fix them, of course, until the



various overlays and additional parts have been added. One of the long sides, for instance, has to have two window overlays glued on, and then a

window sill put at the bottom edge.

Four upright piers are added. One is put at each end, flush with the edge, and the other two spaced evenly between. Along the lower edge and beneath the windows, come the pieces forming the plinth, and they should be cut so they bed nicely to the baseboard, and between the upright piers. As they are slightly thinner than the latter, they will be recessed a little.



The loading bay, cut away to show constructional details.

A detail of the loading platform and doors is given herewith, and the parts for this have to be added to the long side before it is fixed in. The two roof brackets are cut from 3/16in. waste wood taken from the end board, and are glued and nailed so they project forward and come between the two piers. They are dropped just low enough to allow the side roof (in \{\frac{1}{3}}\)in. wood) to be glued on, and bed close up to the side itself.

Notice that the doors are actually cut from the side. The drill hole, therefore, must be made right in one corner of the rectangle shown, and the saw taken round carefully. The whole part taken out is then cut in two, and we have the two doors. Add a little knob or handle of some kind, and then hinge them by putting on two pieces of adhesive tape to the inside. The doors should open inwards.

Gable Overlays

The ends of the shed are decorated with gable overlays which are merely two rims of wood of in thickness, fixed about in below the roof itself. The actual position of the roof, of course, cannot be seen on the outside, but dotted lines on the pattern of the ends gives the position quite

clearly.

An arc of wood forms a suitable arch to the end openings. On the top edge of the ends we have flat coping pieces, formed of strips of wood 3/16in. thick. They are overlapped on the edges evenly with an equal projection both sides, and the ends of each of these pieces must be slightly chamfered so the parts bed together satisfactorily.

The Wall Edging

Not only is this coping piece carried down the long edge of the roof, but also along the flat top of the pillar formation towards the sides and the ends. A detail is given of this coping on the sheet, looking at it from the inside. Notice that further strips are added under the long sloping coping piece to form a parapet, and also to provide the correct width for the roof itself.

The roof can be made up in its entirety and can, indeed, be left removable even after the model is finished. It consists of two sloping pieces each 14ins. by 5\frac{3}{4}ins., held together by girder pattern roof supports. The detail herewith shows the formation clearly. The upper edge of each roof slope must be planed to a slight angle so the pieces meet at the ridge correctly.

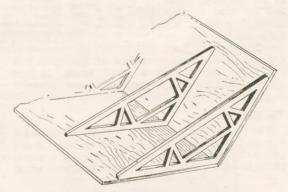
pieces meet at the riage

Have one of the girder patterns cut ready, and test out the slopes on this. There are four of these roof supports required, which are glued equally along on the underside. The two end ones come flush with the edges of the roof slopes, and the other two are equally spaced between.

Before finally gluing the end ones in position, test the whole thing out to prove that the roof itself will slide down comfortably between the parapet parts of the ends. It should just slip into place and rest on the sides, and their piers.

The Wall Piers

It will be found that the piers on the outside walls come square with the wall itself, but in order to get the roof to bed down properly, the whole of this edge should be chamfered off. A sharp



A detail of the roof laid upside down.

plane will be required, and one must be careful to keep an even slope the whole length. If this edging is not taken off, the roof itself will be raised too high, and come too near the actual coping.

This testing must be done before the parts are finally glued in place, because once they are finished it will be almost impossible to plane off the edges of the sides to the chamfer required.

The girder pieces of the roof can be glued in position, and then nails or screws driven in from the outside to make a stronger joint.

The Interior Platform

Inside the shed we have to have a raised platform whereon the actual goods stand ready to run into the trucks when they come alongside. A small detail of this platform is shown on the sheet. It consists of a top, two sides and the front. The front comes between the sides (or ends), and the whole thing when nailed and glued together stands close up to the side with the windows.

As mentioned at the beginning, when the whole model has been temporarily constructed, it should be made ready for painting, Remember in this, that some of the parts are best painted before the

overlays are added. They should, therefore, be tested in position to see they are accurate, and then taken off again until the painting has been completed. The walls, for instance, are best done as imitation brickwork, whilst the plinths, piers,

arches, etc., are done stone colour or cream cement

The imitation woodwork of the windows can of course, be painted in suitable colour such as green or brown, and the doors lined up for imitation boarding. The roof is of slate, and suitable paper is obtainable from Hobbies Ltd. Or again, one can paint the whole part in gray and line it out with thin lines of black to represent the slate edgings.

The necessary lines should be fixed through the shed so the ordinary lines of the lay-out can be

joined up to them. These lines are best made from stripwood laid on other stripwood sleepers. They must be the same gauge and height as the rest of the system, but workers will be able quite easily to arrange their own requirements.

MATERIALS REQUIRED

Materials supplied for making this shed are a parcel of satin walnut and plywood for 3/3 (post free 3/10).

The necessary six pieces of glass (No. 5825) are 9d. (post free 1/-).

A complete parcel of wood and glasses sent for 4/6 post free.

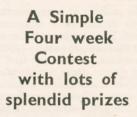
OUR JIGSAW COMPETITION

ON page 104 are given the second lot of parts of the new Jigsaw Competition in which there are heaps of prizes to win for a simple and fascinating contest. During four weeks we shall publish a page of Jigsaw pieces, which when correctly cut in wood and put together, make up four of the popular types of aeroplanes. Last week we had the first, this week the second. The parts cut from these two pages will make up the aeroplane illustrated below and the one illustrated last week.

Just paste the paper down to 3/16in. or ¼in. plywood and cut out carefully round each piece. Then sort them out to make the picture illustrated herewith and the one shown last week. They will, of course, be larger than the illustration shown here.

Two other pictures will follow in the next two weeks and particulars of them will be given of where to send them in and all about the entries. There is no entrance fee and the actual Jigsaw puzzles will be returned after the competition.

Everything is straightforward and quite simple to do. By cutting out four little Jigsaw Pictures you stand a chance to win one of the many excellent prizes, and at the same time, have puzzle sets which will always be a source of amusement. Make up your mind to enter now, and if you did not get last week's issue send for a copy at once. It is obtainable for 3d. post free. Tell your friends about it too, because there are heaps of consolation prizes and they will be delighted to win even one of these.



OVERSEAS SECTION

If you live anywhere outside the British Isles or in the Irish Free State, your entry will come in the Overseas Section, in which the special prizes are awarded. In this there are three prizes offered, value $25/\gamma$, £1 and $15/\gamma$, with a number of consolation prizes. The three main prizes will be goods which the winners may select from Hobbies 1936 Handbook. The closing date of this section will also be announced in a later issue,



Photo Courtesy of Flight.

This is the Autogiro C30

PRIZES TO BE WON
An Al Machine value £2 5 0
Model Railway Goods value
£2

Gem Machine value £1 5 0 Swan Fountain Pen value 21/-

Year's Subscription To Hobbies

Many Consolation Prizes of Polishing Outfits, Pens, Aeroplanes, Fretsaws, etc.

HOME-MADE MARIONETTES

In the first article we described, briefly, the necessary details for the construction of the Marionette Theatre. It was mainly a matter for the carpenter, and one in which the fret-saw played but a small part—the production of details for the external decoration of the proscenium.

In this second article, however, the fretworker comes into his own, a new field is opened for his skill, and a fresh path of pleasure is provided for him to travel and enjoy.

Amongst the first-class marionette makers who use the fret-machine for the production of their puppets there is one man whose name should not be omitted from this article. Mr. W. Stanley Maile, one of the finest marionette makers in this country. At least 75% of Mr. Maile's work is done with the fretsaw. All the sections are cut and shaped by this means and then the finishing touches are put in by hand. So that it is possible to do a very

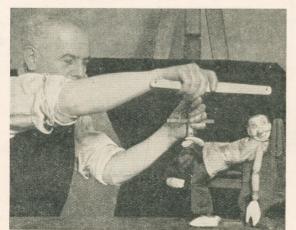
great deal with the fretsaw and to obtain some excellent results with its aid.



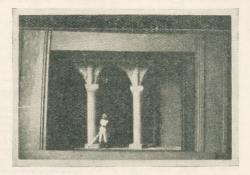
In the making of a marionette, the first thing to do is to decide on a character for the doll to represent. For a beginner in the art the writer would suggest that simple variety turns, such as a dancer, or a musician provide the best items on which to make a start. More complicated efforts, as plays or things of a like dramatic nature, can be kept for a later date, although they have a very important part in the productive side of the work.

For making the head of the dolls both beech and balsa wood are excellent, and both are obtainable from Hobbies Ltd., prices being given on request if you say sizes wanted. Balsa wood is, of course, extremely light, and is particularly useful for extra large heads and for heads and bodies of animals.

The size of blocks suitable for 12 to 14in. marionette heads would be about 2ins. by 2ins. With the use of balsa for the head, it is advisable



How the upright control is held to manipulate the figure.



This Second Article in a short series deals with the making of the actual puppers and how they work.

to make the neck section of harder wood—whitewood or deal, for instance.

Taking the marionette in detail, the head is generally the first part of the figure to be made. The best type of heads are carved in wood, beech, being very useful for this purpose. Soft, splintery wood should be avoided. The eyes should be set deeply in the majority of heads and the nose made very definite, and prominent. In proportion the face is divided into three equal parts, as illustrated, and a side view of the head reveals the fact that it almost fits into a square, with a diagonal line separating the face from the cranium.

One-piece Heads

In some cases the head and neck are in one piece, but many operators like to use marionettes with a double head and neck movement.

The movements are obtained by means of screweyes at the junctions of the parts, and pivotal rods of wire which pass through the 'eyes.' In carving the head, it is sawn into a rough shape to get the main proportions 'blocked out,' first of all. In some cases the nose is inserted, peg-wise on to the head block after the preliminary cuts are made.

Carved Features

When this rough block is made, cut the neck slightly longer than the actual length of neck required in order to fit into its socket on the body as seen in the illustration. The finer details of the features are afterwards carved very carefully, and we would suggest if the craftsman has had no training in drawing and human anatomy, he should copy his head from either a set of photographs, or some modelled figure, that will serve as a guide for form and proportion.

However roughly done, it is far better to try and produce one's own heads, than to use dolls, or china heads or any other substitute for your own efforts. A common fault with beginners is to make the faces too flat, or too square in shape. Careful examination of real heads should help the craftsman to keep away from this,

The body should be made in two sections held together at the waist by linked screw-eyes. There is a socket at the neck into which the point of the actual neck is held by a pivotal rod passing through the shoulders and the neck screw-eye.

The Leg Joints

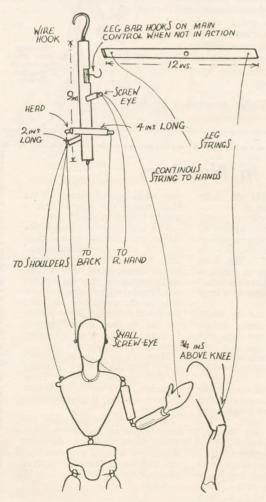
Notice the shape of the hip joint and how the wire holding the legs is passed through and turned in on either side. To add balance to the figure when it is in action, small discs of lead are fixed to each

side of the lower half of the body.

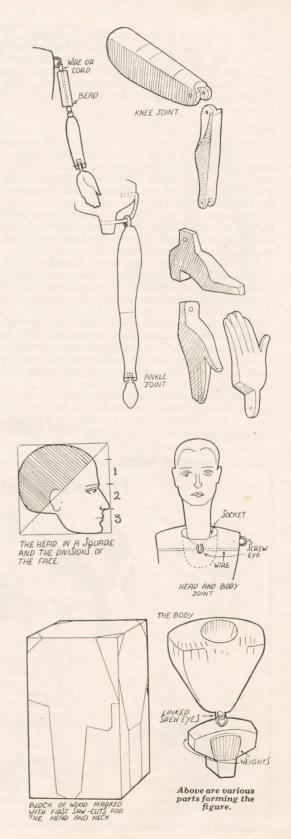
The legs are best made in hardwood, and with a locking joint at the knees (see illustration). If this joint is carefully done the bending movements will be easy and the legs remain firm when the figure stands. The rankle joint and the wrist connection are made after the manner of a mortise and tenon and, like all the other joints, must have very easy movements.

The feet should be cut out in hardwood shaped first by the saw, then finished off by hand, and a very thin sole of sheet lead carefully tacked on to

help in the counterbalance.



A detail of the controls.



The hands can be sawn out almost entirely. It is wise not to separate the fingers, though grooves can be cut with a fine chisel to suggest them. They can be cut in plywood and a little modelling of the knuckles, etc., done with plastic wood. The length of a hand is about the same as that of the

Joints

The top arm may be heavy wood, or a cord through a heavy bead, the elbow joint being a screw-eye into the lower part of the arm which must be of hard wood. Clothes pegs make very good arm sections if cut to length and the groove for the wrist joint is already cut for use.

Screw-eyes, it will be seen, form the general linking up of the figure and, when completed, the doll must be extremely loose jointed and capable of

easy movement in every direction.

For "Strings" use strong carpet thread—No. 18 is best, whilst black or green are the most reliable colours. How the stringing is done is shown on the accompanying illustrations and also the type of control, or perch, to use.

Clothes must be made of soft material. Beware of silk, as it gets rotten and splits up. Felt is useful in some cases but not for sleeves or trousers. Stockinette is excellent and whatever material is used. let all the colours be very bright, clean, and simple in pattern.

In working the marionette, the control is usually held in the left hand and the leg-bar in the right hand. The puppet is made to walk by a rocking movement of the leg-bar, care being taken to move

the rest of the figure on the main control in unison with each step. All movements must be practised slowly at first.

A looking glass will help the operator to "watch his step." Practise holding the control in either hand and above all do not get downhearted if the marionette does not do all you hope from it right from the start. Strings require a certain amount of regulating to obtain perfection of movement and a good stock of patience and persistence will be a great asset to all who take up this

Showing how the marionette is manipu-lated.

(To be concluded)

NATURE NOTES

There's Safety in Numbers



HEN the chilly winds of Autumn herald winter, many birds gather together into hosts for companionship and "safety in numbers." The most fascinating to watch, to my mind, are the wonderful aerial manœuvres of a large

flock of lapwings.

Stretched across the sky like a stratus cloud, they hang awhile, almost motionless, and then with a flourish, move as one in a large sweeping circle, to rise again into the air in perhaps a rectangular formation.

There seems no sole commander for the host often changes direction to follow birds that break away from the flanks or rear. It is a case of "follow my leader," played in sheer enjoyment, with a stiff breeze often playing its part.

The lapwings also drop down on to the new-ploughed fields as one cloud, alighting with a graceful flourish of the wings, to show their white beneath them; all the birds facing one wayusually facing the wind.

This insectivorous friend of the farmer loves the new-turned clods of earth, where fresh dainties need little hunting for. Up to quite recent times, there was a mistaken impression that the lapwing was harmful to the crops, but now it is on the protection list, with the result that large flocks play in the sky to their hearts' delight. It is a sad thing to see a lapwing hanging in a poulterer's shop.

It needs a really stormy winter's day to keep the lapwing sheltering in their furrow trenches. Then, sometimes they will fly off to seek warmer climes, if bad weather continues.

At the first call of Spring, the hosts break up for love-making. Their flight is then different. What pirouetting, somersaulting and twirling is there in incensed air-"all for the love of a lady!" -A.S.M.

AN ELECTRICAL EGG TIMER

Here is a novelty worth making. When the egg boils the bell rings! Quite simple to make, with an ordinary flashlamp battery for the power.

THE ordinary pattern of egg timer requires watching; the electric egg timer, which is the subject of this article, rings a bell directly the egg is cooked and saves that trouble.

It needs to be connected to an electric bell, but many readers are sure to have an old bell already in their possession which they may be glad to put to useful work. In any case, a bell can be purchased so cheaply that the whole contraption need cost

but a shilling or two.

The box should be constructed from 3/16in. fretwood. Fig. 1 shows the front, Fig. 2 the sides and Fig. 3 the top and bottom. The back is the same dimensions as the front, but is just a plain piece of wood. Glue and nail together the sides, top and bottom. The back and front are screwed in place when the mechanism is completed.

The Type of Timer

When buying the egg timer, choose the long pattern such as can be purchased from any bazaar,

not the hour glass kind.

A tinplate case should be made to fit it, a pattern for such being given in Fig. 4. The dimensions shown are taken from an egg timer in the writer's possession but, as these may differ a little in size, check and amend by your own. Drill a hole exactly in the centre, and push through the hole a rin. brass nail or rivet and fix with solder.

The Case

It is necessary for this rivet to be quite square with the back of the case, and to ensure this it is best to bore a hole in a piece of wood and push the rivet through that while it is being soldered.

Now bend up the case as shown in Fig. 5, pushing in the egg timer before the bottom of the

case is bent over. See that it fits closely SO that the egg timer does not wobble about in it. If the case is to be enamelled, or coated with eggshell black,

shell black, do this before the egg timer is fixed inside. The front of the box should have a shallow groove cut along, near the top. The groove

should be about 1/16in. deep, and wide enough for a strip of springy brass (say, a terminal from a

flash lamp battery) to lie in.

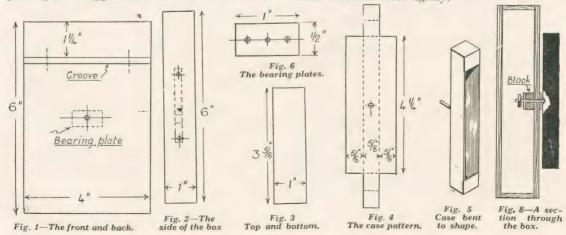
In the centre bore a hole, a loose fit for the rivet of the case, and behind this glue a $\frac{1}{2}$ in. by $\frac{3}{8}$ in. block of wood. This block can be seen in Fig. 8. Continue the hole through the block.

The Metal Plates

The bearing plates are two pieces of thin brass sheet, cut to the size given in Fig. 6, and drilled as shown. The centre hole is for the rivet, and the outer ones (which should be countersunk) for fixing screws. Screw one plate to the front of the case, where shown by the dotted lines in Fig. 1, and the other to the block behind. Make sure both of the central holes are in line.

From a piece of brass sheet, cut a pointer to the pattern Fig. 7, and drill a hole exactly in the

centre to fit the rivet tightly.



Now take the case, push the rivet through the bearing holes, press the pointer on and secure with solder. The position of the pointer should be horizontal in relation to the case when the latter is vertical. In other words it should be at right



Fig. 7-The metal pointer.

angles to it. Do not press the pointer down too tightly, there should be enough freedom left for the egg timer to

swing freely.

On the right-hand side of the box, bore two holes 2ins. apart (see Fig. 2). In these fit a pair of terminals, and under the nuts of each fix a brass spring contact. Flash lamp terminal strips will also serve for these. The position they occupy is shown by dotted lines in Fig. 2. They should be bent with the pliers to the shape seen in Fig. 9, so that they only touch each other when the pointer is in the position shown.

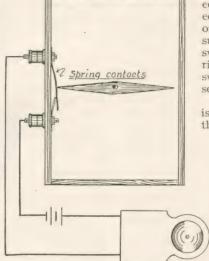


Fig. 9—The interior of the box and its electrical connections.

the box in place. Two small pieces of brass spring must be fitted in the groove above the egg timer. The vertical dotted lines across the groove, seen in Fig. 1, show approximately where the tips of these springs come.

The right-hand one should be about 1½ ins. long; one end is punched for a screw hole, it is then screwed in the groove, it's free end bent outwards. Its position should be such that when the egg timer is swung past it, the bell will stopringing. It also prevents it from swinging back to the vertical and setting the bell going again.

The left-hand spring, 1½ ins. long, is bent at right angles and screwed to

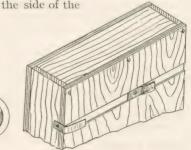


Fig. 10-A detail of the front stops.

Get Contact

The adjustment of these contacts is important, so at this stage it is well to test them. Connect the terminals to a battery and electric bell, as shown in Fig. 9, then swing the egg timer until the pointer is horizontal. If the bell rings, all is right; if it does not (and the bell itself is alright) adjust the contact springs until it does.

You can now screw the front and back parts of

box. Fig. 10 shows both these springs clearly.

The egg timer should now be swung round clockwise until it passes the left-hand spring where, as the sand will be in the upper chamber, it should nest against it. As the sand passes through into the lower chamber, it will swing to the vertical and set the bell ringing.

Fix the contraption to the wall and place the

bell in a convenient place ready for use.

Simple Glass Top Puzzles—(continued from opposite page) pieces of $\frac{2}{8}$ in. wide by $\frac{1}{8}$ in. thick stripwood will need to be reduced to the thickness of the glass with a small block plane.

Before permanently attaching the moulding over the glass, place six 5/32in. dia. steel balls into the Billiard Puzzle and one into the other.

This completes the constructional stages, and being made from satin walnut throughout, the four puzzles should be finely glasspapered and polished accordingly.

Brief Summary of Instructions

THE WATCH PUZZI.E is almost self-explanatory, for all one has to do is to put the two hands over the central peg. Getting one on is not so very hard, but to try and put the other on without dislodging the first is rather a job. This puzzle could be also used as a game, i.e., each person having one or two minutes time in which to put the hands over the peg. The hands indicate a score according to the numerals at which they point.

THE RING-PEG CONTEST assimilates that given before, the exception being that four rings are used. As a game, one minute should be allowed for several players in turn to put on as many rings as they can in that specified period. Scores are determined according to the number of rings over peg.

The Golfer is quite a simple and amusing affair, for all you have to do is to roll the ball from No. I hole up to No. 9 inside one or two minutes. When the time is up, a score is indicated according to the number of the hole in which the ball rests.

MINIATURE BILLLARDS does not require any cue to "place" the six balls on the spots and then "pocket" the whole lot immediately after. This is a feat that calls for steady handling before being accomplished while a friend counts slowly up to one hundred. See if you can do it within that time limit, and in consequence, make a "break" of

You can probably obtain the steel balls from a local cycle shop where repairs are done, as the one you want is only what is known as a ball brace.



SIMPLE GLASS TOP PUZZLES TO MAKE

HAT reader does not like puzzles requiring patience, steady nerves, plus a little ingenuity to work out? The popular answer is

out? The popular answer is undoubtedly—no one! So here's a selection of the latest in Glass-Top Puzzles, all of which can be also used as games and are easily made by use of the full-size patterns provided on page 94.

Very Exasperating

Each one is novel, intriguing, and sure to create unusual interest amongst friends and relations who undertake to "juggle" the tiny steel balls or celluloid washers in place as instructed at the end of this article.

This seems comparatively easy to do, and indeed, looks simple enough at first glance.

Carrying it out is quite another matter, however, for these type of puzzles can be very irritating at times, and unless one has a quiet temperament and determination, there is bound to be much gritting and gnashing of teeth at the end of several minutes hard trying!

Everything Supplied

Of course, like most tricky things, these can be easily overcome when you go the right way about it. It can be only accomplished by fair means, nevertheless, owing to each puzzle being neatly encased with wood and moulding.

Moreover, to work properly, they should be constructed from the materials given in the list. To ensure this, and save a great deal of trouble in trying to procure them locally, Hobbies Ltd. have made up a small Parcel (No. T.M. 317). This includes everything required (except the balls which can be obtained locally) and costs 1/- or 1/5 post free.

Details of Construction

In respect to the various patterns, these, of course, must remain adhered firmly to the $\frac{1}{8}$ in. thick satin walnut to which they are pasted.

Use a fairly strong paste, therefore, and be careful to note that the small clock hands and ring washers are cut independently from a piece of black celluloid (Xylonite) of adequate dimensions. This stuff is only 1/32in. thick and can be neatly shaped with the fretsaw if fitted with a fine blade.

The Circular Puzzles

Of necessity, we have not shown all the patterns belonging to the two circular puzzles. As these take the shape of simple circular rings, the worker would rather prefer to mark them directly to the wood with the compasses.

As it will be observed from the sectional details on the pattern page, you will need to mark and cut out two $\frac{3}{8}$ in. thick rings $2\frac{1}{2}$ ins. on the outside with an inner diameter of $1\frac{3}{4}$ ins. across. Cut two more this size from $\frac{1}{8}$ in. wood and round the edges to form the top glass overlay rim as shown.

In order to provide accommodation for the plain round glasses, two further rings are cut from the same material 2½ ins. on the outside with a 2 in. central diameter. These will have to be glasspapered down to suit the thickness of the glass.

Before gluing all together as shown, however, make two §in. long spindle pegs from a piece of

in. dowel rod, and having rounded the top ends, glue into the central holes provided. When finally fixing down the glasses, don't forget to place the watch hands and celluloid rings in their proper puzzles.

The other puzzles are built up differently from

the latter variety, stripwood and moulding being incorporated as most convenient.

First of all, it will be necessary to make "beds" for the steel balls in the positions as shown by the tiny circles on patterns. To do this neatly, countersink each slightly below the surface, then place a steel ball (ball bearing) in the same and press down about halfway with the flat end of a hammer.

The sectional detail explains how the strips of wood and moulding are mitred and glued to the pattern base. As like the circular glass spacing

piece previously explained, the





MATERIALS SUPPLIED

piece satin walnut, 10 ins. long, 6 ins. wide, \(\frac{1}{2}\) in. thick. piece satin walnut, 4 ins. long, \(\frac{1}{2}\) ins. wide, \(\frac{1}{2}\) in. thick. pieces stripwood, \(\frac{1}{2}\) ins. long, \(\frac{1}{2}\) in. wide, \(\frac{1}{2}\) in. thick. pieces Stripwood, \(\frac{1}{2}\) ins. long, \(\frac{1}{2}\) in. wide, \(\frac{1}{2}\) in. thick pieces No. 35 half-round moulding (satin walnut), \(\frac{1}{2}\) ins. long.

4 pieces No. 35 half-round moutaing (satin wanta), site Jong, jin. wide.

1 piece ‡in. round dowel rod 3ins. long.

2 circular plain glasses (No. 5832), 2ins. diameter.

2 oblong plain glasses (No. 5825), 2ins. by 2ins.

2 oblong plain glasses (No. 5825), 2ins. by 2ins.

1 piece black xylonite, 4ins. long by 2ins. wide.

The 7 steel balls (5/32in. diameter) you will have to obtain locally.



The Largest Sets Ever!

TWO records have just been created in filmdom. One—the largest set ever constructed at the British International Pictures studios at Elstree; two—what is claimed by Metro-Goldwyn-Mayer to be the most elaborate set ever built by this huge organisation.

The British set was constructed for the film version of "The Dubarry," which will be called for screen purposes, "I Give my Heart," and comprised a complete street and square situated in the centre of Paris. Altogether about 60 houses were constructed on this set, all of the period of the story, and built from old prints. One thousand "extras" were employed daily for the scenes cnacted here. Look out for it when this picture eventually reaches your cinema.

The American set was of quite a different character. Studio craftsmen recreated the majestic skyscrapers of New York on a scale never before attempted for a

motion picture.

Tens of thousands of feet of timber, vast amounts of steel framework, and over 200 workmen were required to build this massive set, and more than 5,000 feet of neon light tubing were used for decorative purposes, as well as for the numerous signs on these reproductions of such famous erections as the Chrysler building and the Empire State, two of the world's mightiest skyscrapers. The picture, by the way, is "Broadway Melody of 1936," and is being directed by Roy Del Ruth.

Record "Properties," Too.

COMING down to smaller items, Universal are proudly claiming to have assembled a collection of the most true-to-life "properties" ever used in a film, during the making of "Diamond Jim," which is now being trade shown.

In case you don't know it, "Diamond Jim" Brady was one of the most colourful characters of American history, and his nickname is ample evidence of his eccentricities. He wore a different set of diamond jewellery for

every day of the month, and the reconstruction of these jewels was carried out entirely by the aid of photographs of the originals.

"Diamond Jim's" passion for diamonds started with his purchase of a £20 ring in the days of his youth. When he died he possessed one set worth £50,000 and the twenty-nine others brought the total value of the collection up to half-a-million pounds.

This most remarkable individual even possessed a diamond-studded bicycle, which he used to ride down Broadway, and this machine

How to make a MODEL GALLEON in next week's issue

was also reconstructed from photographs and drawings after a nation-wide search for the original bicycle had proved fruitless. All of which goes to prove the enormous amount of trouble taken by film producing companies in their efforts to give you as near as possible the genuine article on the screen, instead of relying upon cheap and careless fakes.

Concerning Players

JUST a couple of notes regarding players. Ronald Colman has become the highest-paid male star in Hollywood by signing up with David O. Selznick, the well-known producer. I understand that he is to receive no less than 150,000 dollars per picture, plus a percentage of the profits. "Bravo,

Ronnie!" say the Colman fans. That'll show 'em that Britain can produce the best actors!

The other player just now in the limelight is Freddie Bartholomew, the 6-year-old boy who was discovered by Mr. Selznick personally in England after a world-wide search for a boy to play the title role in "David Copperfield." Now, Freddie is to star in "Little Lord Fauntleroy," and if he progresses at this rate it is not too much to expect to see him filling Ronald Colman's shoes twenty years hence.

Film Food in Facts and Figures

SINCE there is hardly sufficient space left in these Notes to delve into descriptions of the many other activities at the various British film-producing centres, let me, for a moment, give you an eye-opener in facts and figures as to what it means to the catering department when such an enormous production unit is busily engaged on the making of a picture.

Well, just get this. In three weeks 1,750,000 cups of tea and 1,300,000 cups of coffee were drunk in the fields at Northolt! 1,000 lbs. of new peas, 72,000 lbs. of veal and ham pie, 7,000 lettuces, 4,000 tins of fruit and 600 hams, 1,100 legs of lamb, 13,000 lbs. of steak, 4,000 Swiss rolls, 2,000 lbs. of tomatoes, and 3,750 slabs of cake were eaten. Surely sufficient to satisfy the hunger of a hundred Bunters! Raging thirsts were slaked with 14,700 bottles of minerals and shattered nerves were soothed by over a million cigarettes.

What an answer this is to those few remaining critics who say that the film industry is not an asset to the country! And what a personal triumph for the untiring efforts of one Mr. Wilson, who, with a staff of 125 experts, took such pride in his work and succeeded in doling out lunch to 1,350 "convicts" in 22 minutes!

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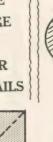
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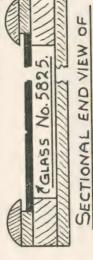


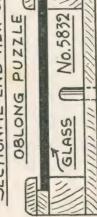
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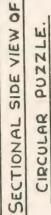
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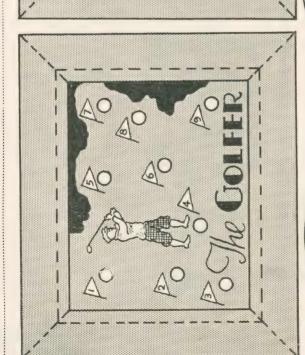
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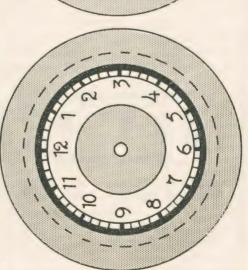












A SIMPLE SMALL CABINET

THE attractive little Cabinet shown here is of the simplest construction and any amateur carpenter should not find it difficult to make

A number of uses could be found for such a piece of furniture as this. It would be highly suitable as a music cupboard or as a gramophone record cabinet, the shelves and racks being easily

made from plywood.

There are no difficult joints to cut and fit, the only parts requiring grooving are the legs of the stool upon which the cabinet stands, and even these groovings can be dismissed altogether because the set of legs as supplied by Hobbies can be ordered grooved and ready for immediate use.

All that is necessary is to say when ordering the legs, and these are Hobbies No. 507 at only 3/- the set of four, that they are wanted grooved with ½in.

deep groove rains. long and ain. wide.

The Lower Stand

Make the stand or stool first. Cut off two rails 16ins. long by $1\frac{1}{2}$ ins. wide by $\frac{3}{8}$ in. thick, and two

roins. by $1\frac{1}{2}$ ins. by $\frac{3}{8}$ in.

Also cut off four pieces of \$\frac{3}{8}\$ in. diameter dowelling to the lengths shown for connecting the legs at the foot. With a \$\frac{3}{8}\$ in. twist drill, bore holes to take these rods \$\frac{1}{8}\$ in. deep, taking care to choose the correct pieces on each pair of legs. Glue in the rails and bars and put round inside some odd blocks of wood to further strengthen the top.

The Top Frame

Next make the frame which fits on the top of the Stool. This is shown in Fig. 1, and is made up of two rails $18\frac{1}{2}$ ins. long and two $12\frac{1}{2}$ ins. long, all four being $2\frac{1}{2}$ ins. wide by $\frac{1}{2}$ in. thick. Cut all the

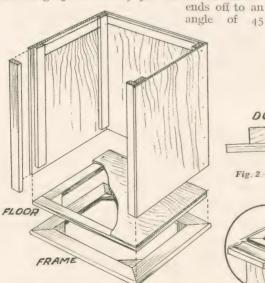
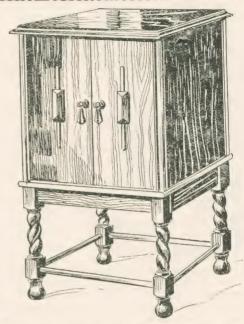


Fig. 1.—The upper portion of the stool and framework of the cabinet



degrees in the mitre box, and glue them together, seeing that the internal angles are perfectly square before gluing in the angle blocks which consist of waste wood from the mitring. Finally round off all the edges with plane or glasspaper and screw the frame to the rails of the stool.

The Cupboard

The illustration Fig. 1 clearly shows the construction of the cupboard which is made up from sheets of plywood strengthened with narrow rails. The floor should be made first, and as the cupboard is 18ins, wide along the front and 12ins, deep from front to back, and as the floor fits between the

plyword sides and back, two rails of deal or pitch-pine will be required $17\frac{5}{8}$ ins. long by $1\frac{1}{2}$ ins. wide and two $8\frac{5}{8}$ ins. by $1\frac{1}{2}$ ins. and all $\frac{1}{2}$ in, thick.

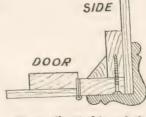


Fig. 2.—A section through the

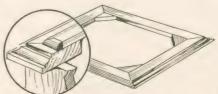
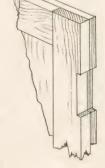


Fig. 3.—The framework of the cabinet top



Place the shorter rails between the longer ones and glue them together and cut four accurate corner blocks and glue them in the inside angles in a similar manner to the frame on top of the stool.

Now place this frame, which should first have its angles tested to see that they are all at 90 degrees, on a sheet of 3/16in. Birch plywood and mark round it and cut it out accurately to the lines. Nail or screw this and glue it to the frame and clean off any ragged edges.

Sides

The sides consist of two sheets of 3/16in. faced plywood measuring 18ins. by 12ins. and up two edges of each there will be stiffening strips of 1½ins. by ½in. stuff nailed on. Each strip will be 17-5/16ins. long and will be kept flush at the top edge as shown, so that the floor can come up to them and allow the floor to be screwed to the lower edges of the plywood sides. The strips that come at the front of the cupboard also will be kept in 1/2 in. from the edges of the plywood as shown to allow of two other 1½ ins. by ½ in. strips to be screwed on to them to form door stiles to which the doors will be hung.

The plan of one corner of the cupboard explains the above, and shows also how the entire angles are further strengthened and made neat in appearance by gluing up pieces of corner moulding No. 300. Pieces of §in. angle fillet should be glued up in the angles inside to hold the rails rigid.

The back strips of the sides will be kept in 3/16in. from the upright edges of the plywood to allow the back of the cupboard to drop on to the strips and be nailed thereto.

The back measures 18ins. by 17\sum_8ins. To strengthen further the top of the cupboard, and to form a proper fixing for the top frame, three strips should be nailed round inside and kept flush with the edges of the plywood. Glue and screw all the parts securely and then make the top. piece of 3/16in. plywood 18ins. by 12ins. and to it screw the frame shown in Fig. 3. This frame is made from four pieces of No. 41 Moulding in Oak.

Mitre the pieces together as shown in Fig. 3, using some waste pieces of stuff to stiffen the internal angles. The edges of the plywood can be effectually hidden by pinning and gluing round some quarter round beading as shown in the enlarged section in Fig. 3.

Screw and glue the top to the rails of the cupboard and put inside some gluing blocks to strengthen it. The doors are simple to make and consist of two pieces of 3/16in. plywood 18ins. long by 71 ins. wide.

On the inside of each of these pieces nail on two upright rails 18ins. by 11ins. and two cross rails 43ins. and all 3in. stuff. Fig. 4 shows a detail of one corner of a door with recess for hinges.

The simple decoration on the doors consists of two plain oblongs No. 213 with two strips glued on above and below. The handles are No. 5391. A complete parcel of wood cut into convenient lengths and widths and with the necessary corner moulding legs, ornaments, etc. can be got direct from Hobbies, and the price will be sent on request.

CUTTING LIST

Spanish Chestnut and Deal or Pitch-pine

Spanish Chestnut and Real Rails 16 ins. long, 1½ ins. wide, \$\frac{1}{2}\$ in. thick. Stool.

2 Rails 10 ins. long, 1½ ins. wide, \$\frac{1}{2}\$ in. thick. Stool.

2 Rails 10½ ins. long, 2½ ins. wide, \$\frac{1}{2}\$ in. thick. Frame.

2 Rails 12½ ins. long, 1½ ins. wide, \$\frac{1}{2}\$ in. thick. Floor Frame.

2 Rails 18 ins. long, 1½ ins. wide, \$\frac{1}{2}\$ in. thick. Floor Frame.

2 Rails 18 ins. long, 1½ ins. wide, \$\frac{1}{2}\$ in. thick. Stiffener Rails.

2 Rails 18 ins. long, 1½ ins. wide, \$\frac{1}{2}\$ in. thick. Stiffener Rails.

2 Rails 18 ins. long, 1½ ins. wide, \$\frac{1}{2}\$ in. thick.

3 Rails 18 ins. long, 1½ ins. wide, \$\frac{1}{2}\$ in. thick.

4 Rails 18 ins. long, 1½ ins. wide, \$\frac{1}{2}\$ in. thick.

4 Rails 5 ins. long, 1½ ins. wide, \$\frac{1}{2}\$ in. thick.

5 pieces of No. 41 Base Moulding (Oak) 21 ins.

2 pieces of No. 41 Base Moulding (Oak) 15 ins.

2 pieces in. dia. Dowel Rod 16ins.
2 pieces in. dia. Dowel Rod 16ins.
2 pieces Quarter-round Beading No. 57, 18ins.
2 pieces Quarter-round Beading No. 57, 15ins.
4 pieces of Corner Moulding No. 300, 18ins. long.
2 pieces of in. Angle Fillet.
1 piece Birch 3/16in. ply, 18ins. by 12ins. Floor Back.
1 piece Birch 3/16in. ply, 18ins. by 12ins. Floor Back.
2 pieces Oak-faced ply, 18ins. by 12ins. Sides Top.
1 piece Oak-faced ply, 18ins. by 12ins. Sides Top.
2 pairs Hinges, 1in. brass.
2 No. 539 Handles.
2 No. 513 Oak Oblongs.
4 No. 507 Oak Legs grooved at top. 2 pieces in. dia. Dowel Rod 16ins. 4 No. 507 Oak Legs grooved at top.

Gift Novelties—(Continued from opposite page)

by 3ins. is first ruled over with 1/2 in. squares as in Fig. 5, and the outline and interior work then put in a similar way to the pen rack just dealt with.

There will be no mortise along the foot, for it is intended to fix a wire strut at the back to hold the ornament upright. The whole effect, of course, depends upon the way it is cut out and the method of surface finish. A fine fretsaw should be used for cutting round so as to reduce edge cleaning as much as possible.

Paint or enamel again could be used with good effect, or, perhaps, in this case ordinary watercolour poster paint would

do with a covering coating of clear varnish. This latter method is most easily done as the paint dries quickly and is, perhaps, not quite so sticky as the oil paint. Crusoe enamels, however, are to be recommended as being easily applied and quick drying and giving a clean glossy surface.

The body of the rabbit will be light brown with boards and straps of blue. The back of the orna-

ments should be painted black before the wire strut No. 6186 is pinned on. The calendar to be glued on is Hobbies No.

MATERIALS REQUIRED

Satin Walnut or Mahogany 5½ins. by 3½ins. by 3/16in. Satin Walnut or Mahogany 2½ins. by 2½ins. by ½ins. by ½ins. by ½ins. by ½ins. by 3/16in. plywood 6ins. by 3ins. 1 Inkwell—No. 5661.

1 Calendar Pad—No. 6202.

1 Wije Start M. 6602.

1 Calendar Faa - No. 6186. 1 Wire Strut-No. 6186.

The two

Pelicans for-

ming the pen rests should

be cut from 3/16in. ply-

wood. The

outline given

in Fig. 3 may

be easily en-

larged to full

size by draw-

HE time will soon be here to commence making up some novelties as gifts for Christmas. We give here two useful little pieces which would be easy to make and which would serve as acceptable gifts.

The inkstand and pen rack in Fig. 1 has a simple base, the outline for which can be easily drawn direct on to a piece of 3/16in, wood from the measurements given in Fig. 2. When cutting round the outline with the fretsaw, be careful to hold the frame perfectly upright, nothing looks worse than a base having its edges at all different

When cut round, and after the two mortises have been cut out, clean up the surfaces with glasspaper and then cut out the square of \$\frac{1}{8}\text{in.} wood which holds the ink bottle in place. This is also shown in Fig. 2 with the necessary measurements.

Fig. 1.-A simple inkstand and rack

the actual finish should be decided upon. A very effective appearance could be got by first staining the whole base black, using Hobbies Egg-shell Black, and then French polishing this; when it is quite dry, of course.

Another method would give almost an equally good effect and that would be to stain the base

Fig. 4.—The Rabbit Calendar

either black or brown and then to varnish it laying this latter on with a fairly wide brush in a warmed room. Some workers again may prefer to get the whole ornament glued up and then finish it with ordinary paint or enamel.

The body of the birds will be white, of course, with the beak and pouch and the legs and feet yellow. The markings should be done with a fine brush.

A Suitable Inkwell

A little glass inkwell and cap for which this stand was designed may be got from Hobbies for 9d., it is 1½ins. square and fits the centre overlay. When ordering please ask for No. 5661.

Our second ornament is the "Bunny Calendar" shown in Fig. 4 and this consists merely of a simple cut-out of 3/16in. plywood coloured up artistically and having a tiny calendar pad glued to the "board" in front. A piece of wood 5½ ins.

(Continued on opposite page)



Fig. 2.—The base piece and inkwell rim

of in. squares in pencil on a piece of wood measuring 31 ins. by 3ins. Use a set square for this purpose to ensure getting perfect squares, and when this is done follow the outline of the bird carefully through each square and finally line in with a hard line all round.

The Second Outline

Use a fine fretsaw for the cutting, and afterwards clean off the pencil lines. Having the one bird cut, lay it on the second piece of plywood and carefully draw round the outline with a sharp hard pencil. Cut this out and clean it up and see that the tenous are the correct length before putting on the glue which holds them to the base.

Before gluing on the pieces to the base, however.



Fig. 3.-An outline of the pelican

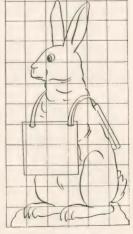
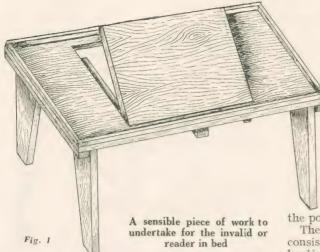


Fig. 5.—The rabbit features in outline



THE handy bed table illustrated in Fig. 1, is particularly useful, since it is so constructed that the centre portion of the tray is made to support itself in the form of a book rest. It can be cut and made in oak or walnut and finished with stain and polish.

The construction of the article is quite simple, and is done in the following manner. The bottom of the tray is cut from wood ½in. thick 24ins. long by 12ins. wide, and the centre portion is taken out 12ins. long by 10ins. wide as indicated in Fig. 2.

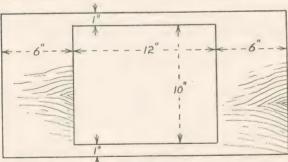


Fig. 2.—The main base of the tray with central hole

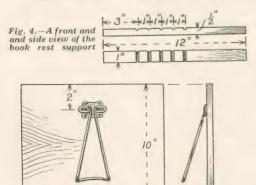


Fig. 3.—Showing table supports

A BED TRAY AND BOOK HOLDER

The table supports are in the form of legs and two are required from wood §in. thick as indicated in Fig. 3. First cut the wood 12ins. by 10ins., and then measure 1½ins. from the corners along the bottom, and 2½ins. from the sides a distance of 2½ins. from the top. The tapered sides on the inside are now marked and then the portion is neatly cut out with the fretsaw.

The book rest support is indicated in Fig. 4, and consists of a piece of wood 12ins. long by 1in. wide by ½in. thick. The wood is notched at the intervals indicated, and then fixed on the under side of the tray bottom as shown on two blocks 1in. by 1in. by ½in. thick. These blocks give a clearance between the support and the book rest when folded down, which allows for the strut.

The Folding Book Rest

The book rest is made in wood $\frac{1}{2}$ in, thick and is cut 12ins, by 10ins, (Fig. 5) to fit nicely into the opening cut in the tray bottom. A 6in, strut is fixed in position on the underside of the rest with

the hinge centre 2 ins. from the top as shown. This strut engages in the notches in the support

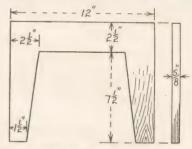


Fig. 5.—The book rest and metal support.

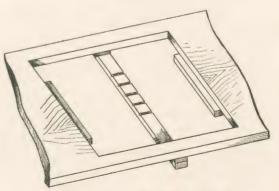


Fig. 6.—The notched support and side strips under the central hole

when the book rest is required but when used as a tray bed-table the book rest folds into place in the opening of the tray bottom by means of hinges.

Two ledges at each side of the opening on the underside of the tray keep the rest level with the tray top and these are pieces of in. wood 6ins. long by Ilins, wide fixed in position as indicated in Fig. 6. This detail also shews the under side of the completed article.

A wooden strip is fixed on the under side at each end, the strips being 12ins, long by 5in, wide by in. thick. The legs of the table are fixed in

CUTTING LIST 1 piece 24ins. long by 12ins. wide by ½in. thick. 2 pieces 12ins. by 10ins. by §in. thick. piece 12ins. by 10ins. by in. thick. piece 12ins. long by 1in. wide by

2 pieces 12ins. long by 5in. wide by

2 pieces 6ins. long by 1 ins. wide by in. thick.

2 Strips in. by in. by 24ins. long.

2 Strips in. by in. by 11in. long.

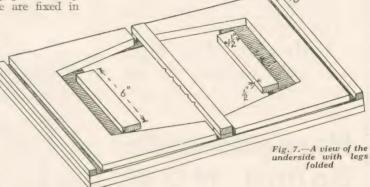
2 Blocks Iin. by Iin. by in. thick.

in. thick.

in. thick.

position with hinges, so when in use they open out and butt against the end pieces. When not in use the legs fold back on the bottom (Fig. 7), and so take up less room when the article is packed away.

The top of the table is finished off by fixing a narrow ledge round the edges, and this is made in strips of wood, size 3in. square. The surface of the wood should be smoothed up, with glasspaper and particular care taken with the corners and





A SCOUT EMBLEM IN AND ENAMEI

SIMPLE and attractive piece of woodwork in colour suitable for Scouts or Cubs is illustrated here, and full size patterns are printed on page IoI. The little

panel is easily cut out with a fretsaw and then painted in bright colours of enamel. The shaded piece forms the background to one piece of wood and the outline of the badge and scroll is an overlay cut from another piece of wood and glued on.

Wood in. or 3/16in. is a suitable thickness for the back piece, and 1in. wood for the overlay

It is as well to take a tracing of these outlines in order to leave the printed pattern intact. will then have a guide for the painting later.

The outline of the badge and name scroll is cut out with the addition of the two openings shaded. The rest of the marking is done by painting. Clean up the two pieces of wood and then line in with pencil the various markings shown on the pattern. Use poster paint or those little 2d. tins of Crusoe Enamel for colouring.

The painting is undertaken with a fine brush and the two pieces of wood are treated separately before being

Full size patterns see page 101

glued. A picture of the finished Plaque suggests the way in which the colouring can be done. outline of the back can be dark blue with grey and black alternating streaks behind the badge. The badge itself is cream or buff with the edge marked out in some contrasting colour. The stars, cross strip and wording can be done in red or a deep shade of blue.

The letters R.S. shown with the pattern are the initials for Rover Scouts which can be added on the badge in the place of the two stars found in the Scout badge. Thus, the Plaque can be made suitable for Rover headquarters as well as Scout

The Plaque is hung by little wall bracket pins to the top and it can be made useful by the addition of a calendar hung from the bottom or a neat pad for telephone numbers, or a simple sheet for notes to be made upon it. Or it can even be used to decorate the top of the Club Notice Board.

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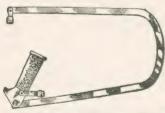
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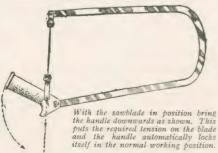
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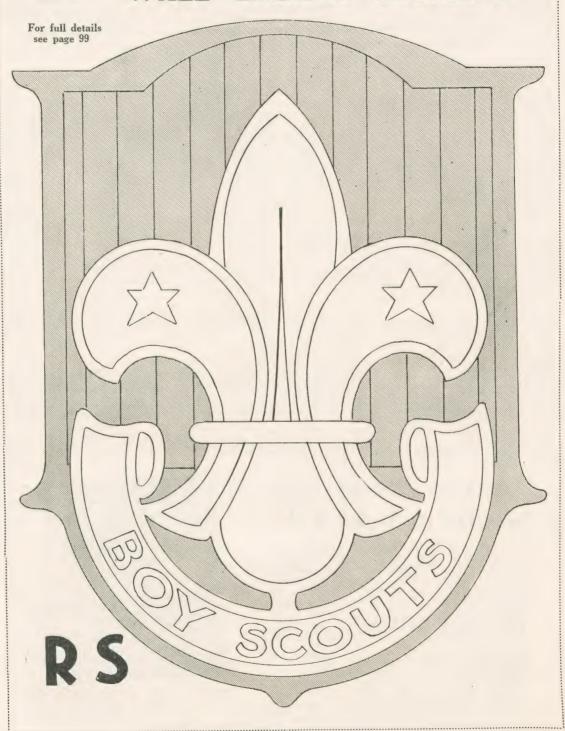
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OVERHAUL YOUR DUPLICATES

WE gave up one page recently to the seasonal overhaul of the stamp collection, and this week we want to have an overhaul of those stamps which are not in the actual collection, but which are really just as important because it is through these that you are going to increase the number and quality of the wanted specimens.

Where are all these duplicates now? Probably all flung together in some box or even in some old

envelope.

If this is the case they must be cared for properly, and sorted out carefully to find any particular specimen that a friend may want. Every stamp dealer has a very definite system, and so should you, because you want your friends to come to you with their 'swops' so

vou may increase your collection. And they will come if they think there is a good chance of seeing what they want If not then, they will go to some one else.

Now these duplicates will require rather a lot of sorting unless you set about the task properly. You want. some method which can be left after you have done a little, and which will enable you to start

again easily. Here is such a way. Collect together all the used match boxes you can find. When you have five, then you can start the sorting; as you collect more then you will be able to sort better. Stick the match boxes together so they form a miniature chest of drawers, and label them with the names of the five continents. Then place the stamps in their proper boxes.

You will probably find that there are far too many stamps in the box labelled Europe. Well, as the chest grows you will be able to label the fresh boxes with the names of the countries which have the most specimens as duplicates. Very soon you will find that you have a neat box in which all your stamps are correctly placed; and

from which you will be able to pick out any wanted to show your friends.

You will also be very surprised to find that when doing this sorting you will want to look up some in your album to see if you have them in there, and most probably the sorting will provide you with a number of stamps for the collection which you did not know that you had.

Here is another which is really a better way, but it is more trouble and costs a little. When completed however, it forms a very valuable adjunct to the stamp collector's

outfit.

Procure a spring back cover. which will cost you about 1/3 according to the size that you

select. Suppose you get one 10ins.

The useful and easily made collecting book

by 8 ins., lin. will be taken up by the spring so the covers will have a protecting surface of 10ins. by 7ins. Having measured the size, cut sheets of stiff white cardboard 91 ins. by 61 ins, (that is, 1 in. each way smaller than the protecting surface) and cut the same number of strips of cardboard 3in. wide and 91ins. long.

Very neatly cut strips of white paper (as stiff as possible) as long as the cardboard is wide—in this case 6½ ins. long and 7 ins. wide.

Starting at the top of the cardboard page glue the first strip of paper lin. from the top. The glue must be very carefully put on the paper so when this is stuck down it forms a long pocket. Only put the glue along the bottom 1 in. of the paper strip and do not use

much glue, otherwise it will stick down the pocket below (see A in. the diagram). The sketch is drawn to show only one pocket so that you may see clearly how this is

put on.

The second pocket is glued so it just overlaps the pocket above. If put on so there is no overlap, then it would be very difficult to open the pocket without tearing. If the cardboard page is 91ins. by 6½ ins. there should be just enough space for nine pockets.

Probably you will not be working to these exact measurements because the spring binder case you have is not the same size, but the measurements given will enable you to make up your own quite

easily.

When you have fixed the pockets

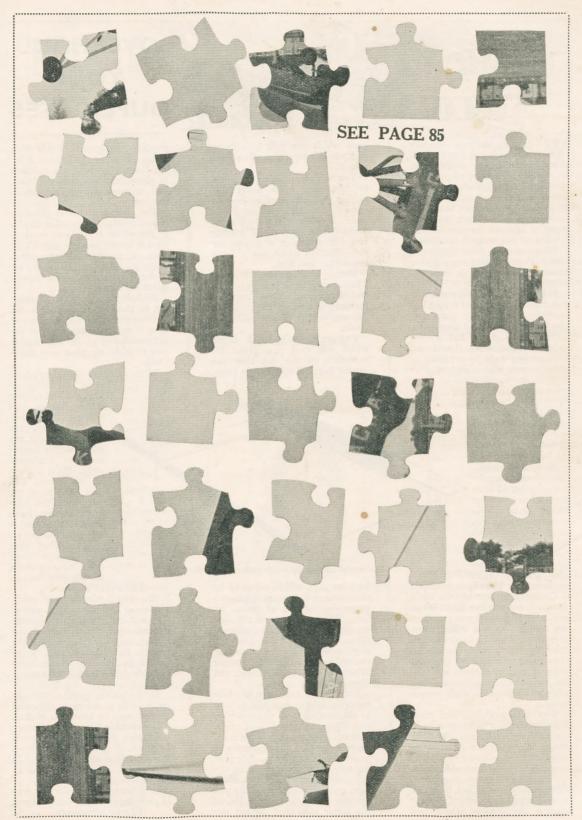
then you finish off the page by putting a neat outside tape binding (B), say ½in. tape glued ¼in. back and front. Next, the page must be hinged to the cardboard strip. Take a piece of wide tape (C), glue a 1 in. to the page over the edge of the pockets, leave a lin. of tape free to and glue the rest on the strip, so that you have a page with nine pockets on one side loosely

joined to a cardboard strip.

The strip is placed in the spring binder so the pages open easily. The number of such pages made depends upon the capacity of the binder and the patience of the reader, but twenty such pages should fit into the binder comfortably and be sufficient for many duplicates.

Note that the pockets are only on one side of the page, otherwise stamps may be torn. As readers will understand, care is necessary in making this 'stockbook,' as it is called, if it is to be of value. Particularly must care be used in gluing and allowing the glue to dry thoroughly before using.

Next we must find the best way of carrying these duplicates about. (To be continued)



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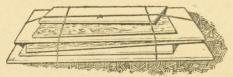
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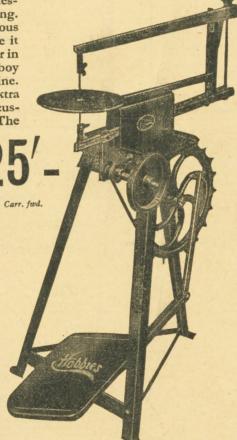
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